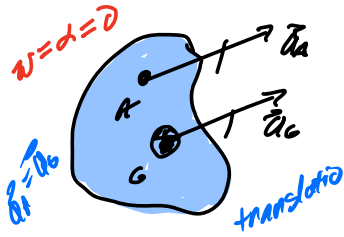
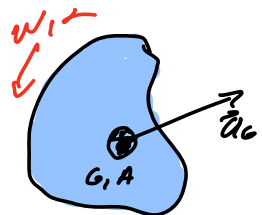
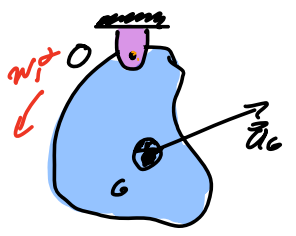
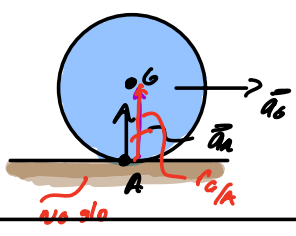


Theory Review: Newton - Euler Equations

$$\underline{\Sigma \vec{F} = m\vec{a}_G}, \quad \underline{\Sigma \vec{M}_A = I_A \vec{\alpha} + \vec{r}_{G/A} \times m\vec{a}_A}$$

~ Apply to anything

Point A	Situation	$\Sigma \vec{F}$	$\Sigma \vec{M}_A$
$\emptyset$ A		$\Sigma \vec{F} = m\vec{a}_G$	$\Sigma \vec{M}_G = \vec{0}$ $\Sigma \vec{M}_A = \vec{r}_{G/A} \times m\vec{a}_A$
A = G		$\Sigma \vec{F} = m\vec{a}_G$ works for	$\Sigma \vec{M}_G = I_G \vec{\alpha}$ perfect
A = O		$\Sigma \vec{F} = m\vec{a}_G$	$\Sigma \vec{M}_O = I_O \vec{\alpha}$ I_O Axis Thm
A so that $\vec{r}_{G/A} \times \vec{a}_A = 0$		$\Sigma \vec{F} = m\vec{a}_G$	$\Sigma \vec{M}_A = I_A \vec{\alpha}$ $\Sigma \vec{M}_G = I_G \vec{\alpha}$